

FACT SHEET



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Clark-Floyd County Landfill

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100 N. Senate Ave., Indianapolis, IN 46204

Facility Description:

- The Indiana Department of Environmental Management (IDEM) has received odor complaints concerning the Clark-Floyd Landfill facility at Highway 60, Bennettsville, Clark County, Indiana.
- Clark-Floyd Landfill (CFL) is a solid waste landfill on 168 acres that accepts approximately 700 tons per day of municipal solid waste (MSW) and construction and demolition debris (C&D). The facility, constructed in 1970, consists of a municipal solid waste landfill with a landfill gas collection station.
- CFL has a collection and control system that captures the gas generated within the landfill and routes the collected gas to a control system that is designed to minimize off-site migration of subsurface gas. This system consists of gas wells located across the landfill surface and a vacuum piping system. The system permitted to send the landfill gas to the Clark-Floyd Landfill Gas Generation Station to generate electricity or the gas is flared when it is not used. CFL has a ground water monitoring system made up of 17 ground water monitoring wells around the landfill perimeter. CFL is required to sample ground water in June and December of every year.
- CFL operators must: monitor and manage gas emissions; regularly test ground water adjacent to the site; collect leachate for treatment; and, compact and cover waste on a daily basis.
- This fact sheet provides information about IDEM's role in ensuring that the facility complies with the terms of its environmental permits, as well as, all applicable environmental requirements to prevent and minimize environmental impacts.

IDEM's Role:

- IDEM is responsible for protecting human health and the environment while allowing safe industrial, agricultural, commercial, and government operations vital to a prosperous economy. In addition to issuing approvals and permits that comply with federal and state environmental regulations designed to protect public health and our environment, IDEM is also responsible for overseeing regulated activities and monitoring compliance at regulated facilities. IDEM conducts routine inspections and responds to pollution complaints.
- CFL has been issued three permits by IDEM. The solid waste permit, renewed in December 2013 (VFC # 69413889), regulates the types of waste the landfill can accept and the construction and operation of the landfill. CFL has two air permits. The Title 5 Operating Air Permit covers the operation and management of the gas wells and emissions of the facility and was renewed in July 2014. The second air permit covers the operation of the energy generating station located at the facility. Inspectors from IDEM's Office of Land Quality and Office of Air Quality are responsible for conducting unannounced inspections at the facility to ensure compliance within the guidelines of the facility permits.

- IDEM has conducted numerous site inspections and made multiple site visits. IDEM has utilized inspection staff and experts from Land Quality, Air Quality, Water Quality and Emergency Response to investigate and help identify the odor and determine possible sources of the odor.
- IDEM staff is working with complainants in the communities surrounding the landfill to gather information, track odor locations, wind direction and times when the odor is detected.

Findings and Activities:

- December 15, 2015 – A ground water sampling event was conducted. The report associated with this sampling event is dated February 12, 2016, and may be found in IDEM's Virtual File Cabinet <http://www.in.gov/idem/6953.htm> (VFC #80233328).
- January 27, 2016 - IDEM inspectors detected a pungent odor coming from an area near gas wells located in the landfill during a site inspection. The inspectors checked the gas wells and surrounding area and the results indicated possible issues with three gas wells. The wells are part of the gas collection system used to control and minimize off-site migration of subsurface gas and could contribute to potential odor generation.
- February 3, 2016 – IDEM Land Quality issued an Inspection Summary/Violation Letter to CFL based on the results of the January 27, 2016, site inspection. The violation letter addressed solid waste permit conditions relating to odors from gas wells and required a plan for returning to compliance.
- February 15, 2016 – CFL submitted an air permit modification request to IDEM to increase the size of the gas flare on site and add automation to the control system. The request also included a modification to allow acceptance on asbestos containing materials at the site.
- February 16, 2016 - CFL responded to the violation letter and notified IDEM that a repair crew had been hired to further investigate and/or correct the subsurface pipeline conditions for two extraction gas wells which were showing elevated oxygen readings. CFL repair crews attempted to repair gas wells; however, testing showed elevated oxygen remained.
- March 3, 2016 – IDEM Land Quality staff conducted a review of 2015 storm water monitoring reports and requested additional information and responses from CFL operators concerning sampling frequency, sampling levels for total iron and total suspend solids and effectiveness of control measures.
- March 9, 2016 – IDEM Air Quality staff conducted site inspection and records review. Air Quality staff requested additional records and reports from CFL operators.
- March 14, 2016 – CFL notified IDEM that repairs to the wells and the collection system will be complex and extensive. CFL determined that the vacuum lines near the wells may contain liquids. CFL plans to replace the vacuum lines between the well and the collectors. The vacuum lines are at a substantial depth, and the repair requires installation of replacement piping. CFL requested additional time to correct problems with the wells and collection system.
- March 28, 2016 – IDEM Land Quality staff conducted a ground water monitoring well inspection at CFL. The inspection report was issued on May 12, 2016. The report identifies repairs and improvement CFL

needs to implement at various ground water monitoring wells to ensure the wells continue to yield representative ground water samples.

- April 15, 2016 – IDEM Air Quality issued an inspection summary letter / enforcement action letter to CFL based on the results of the March 9, 2016, site inspection and records review. The enforcement action addresses 11 potential violations including failure to comply with federal and state air regulations, failure to submit reports, and failure to monitor.
- April 22, 2016 – IDEM conducted a status update meeting with CFL operators, Clark County officials, county engineers, facility consultants and legal representatives to review current and planned CFL improvements. The meeting included discussions of implementation plans and schedules, plus a discussion of current compliance issues.
- May 2, 2016 – IDEM issued a letter to CFL stating the facility will be referred to the Office of Land Quality Enforcement Section for formal enforcement. The referral was based on potential permit violations and information gathered during complaint inspections and site visits.
- May 2, 2016 – IDEM Office of Land Quality issues a review letter and comments on the 2nd Semi-Annual 2015 Ground Water Report for Clark-Floyd Landfill (February 12, 2016) (VFC #80285976).
- May 5, 2016 – IDEM Air Quality conducted a pre-Notice of Violation meeting with CFL operators, county officials, county engineers and legal representation for all parties.
- May 9, 2016 – IDEM Land Quality staff issued corrective actions to CFL to address storm water monitoring issues and concerns. The letter requires CFL to address effectiveness of control measures in 2016 by: dredging the east sedimentation basin, building a new outfall structure and increasing the sampling events.
- May 10, 2016 – IDEM Air Quality Permits published a draft permit notice and started the 30-day public notice for permit modifications to allow for the addition of a new landfill gas flare, removal of the existing landfill gas flare, and to update the permit to include the requirements of 40 CFR 61, Subpart M which will allow the source to begin accepting asbestos-containing waste material. The public comment period ended June 10, 2016. Copies of the draft permit can be found at the Borden Library or online at www.IN.gov/ai/appfiles/idem-caats.
- May 23, 2016 – IDEM Air Quality staff received a request from CFL for the extension of time for the construction and repair for five wells in the landfill facility.
- May 25, 2016 – IDEM Land Quality formal enforcement referral packet is submitted for review and approval.
- June 6, 2016 – A ground water sampling event was conducted. The report associated with this sampling event is dated August 4, 2016, and may be found in IDEM's Virtual File Cabinet <http://www.in.gov/idem/6953.htm> (VFC # 80338137).
- June 17, 2016 – IDEM Air Quality Permits issued a permit modification approval to increase the size of the gas flare on site and add automation to the control system. The request also included a modification to allow acceptance of asbestos containing materials at the site.

- June 29, 2016 – Clark-Floyd Landfill, LLC provided Air Quality with a written response and proposed timeline for returning the gas collection and control system to compliance.
- September 9, 2016 – IDEM SERO staff responded to odor complaints and conducted a site visit/inspection at Clark-Floyd Landfill site. Staff visited complainant homes in the surrounding area. No odor was detected.
- September 13, 2016 – IDEM Air Quality issued a Notice of Violation to Clark-Floyd Landfill, LLC based on the results of a March 9, 2016, site investigation. The Notice of Violation addressed 11 potential violations including failure to comply with federal and state air regulations, failure to submit reports, and failure to monitor.
- October 12, 2016 – IDEM received a request from Clark-Floyd Landfill, LLC for the abandonment and replacement of six landfill gas collection wells in Section 6 of the landfill. Replacement collection wells were to be installed. The notice included an alternative timeline request for two wells.
- October 12, 2016 – IDEM SERO received verbal notice from Clark-Floyd Landfill, LLC of a potential subsurface oxidation event which occurred on September 11, 2016. Onsite personnel from Clark-Floyd Landfill, LLC provided basic information about the event and corrective actions taken.
- October 13, 2016 – IDEM received written notice from Clark-Floyd Landfill, LLC of a potential subsurface oxidation event which occurred on September 11, 2016. The event occurred in Section 6 of the landfill and impacted the landfill gas system including sump 1 and sump 12. The written notification included system impact information and corrective actions taken during the event.
- October 24, 2016 – IDEM SERO staff responded to odor complaints and conducted a site visit/inspection at Clark-Floyd Landfill site. Staff visited complainant homes in the surrounding area. Staff detected a strong odor southeast of landfill on Hwy 60. Leachate tanks were being pumped, but no odor was detected at the tank. Staff checked the progress of new flare installation.
- October 27, 2016 – Clark-Floyd Landfill, LLC submits a request to abandon and replace ground water monitoring well MW-4-11 (VFC # 80372290), after it was inadvertently damaged by a mowing crew.
- October 28, 2016 – IDEM Air Quality received an updated compliance and planning schedule for the site from Clark-Floyd Landfill, LLC.
- November 2, 2016 – IDEM Land Quality staff issued a Notice of Violation and Proposed Agreed Order to Clark-Floyd Landfill, LLC based on the results of a January 27, 2016, site inspection. The enforcement action addressed five potential violations including failure to properly control gas emissions, failure to comply with permit conditions, and failure to take immediate corrective action if any nuisance or pollution conditions are created by operation of the landfill gas collection system. VFC #80377296
- November 3, 2016 – IDEM SERO staff responded to odor complaints and conducted a site visit/inspection at Clark-Floyd Landfill site. Staff detected a strong odor southeast of landfill on Hwy 60. Staff visited complainant homes in the surrounding area, and detected a strong odor at complaint locations in Borden and Memphis, Indiana. Staff checked the progress of the new flare installation.

- November 9, 2016 – IDEM Land Quality staff visited the landfill site to discuss a subsurface oxidation (SSO) event and remedial work performed on the methane gas condensate pump. No methane or unusual odors were detected at the site.
- November 17, 2016 – IDEM SERO staff responded to odor complaints and conducted a site visit/inspection at Clark-Floyd Landfill site. Staff detected a slight landfill odor on Ebenezer Church Road. Staff visited complainant homes in the surrounding area. Staff checked the progress of the new flare installation.
- November 17, 2016 – IDEM SERO received notification that the new flare was operational at the Clark-Floyd Landfill.
- November 28, 2016 – IDEM Air Quality staff received an alternative timeline request from Clark-Floyd Landfill, LLC for landfill gas well 1.13.
- November 29, 2016 – IDEM Land Quality geology staff issued a response to a request from Clark-Floyd Landfill, LLC (October 27, 2016) to abandon and replace groundwater monitoring well MW-4-11.
- November 29, 2016 – IDEM SERO staff responded to odor complaints and conducted a site visit/inspection at Clark-Floyd Landfill site. Staff detected a slight landfill odor near the leachate tank on Wilson Switch Road. Staff visited complainant homes in the surrounding area. Staff verified the new flare was installed and operational.
- November 29, 2016 – IDEM SERO received a request for assistance from Clark-Floyd Landfill, LLC to determine location, frequency and details of complaints in order to help onsite landfill staff begin monitoring with odor detection equipment.
- Additional actions may be posted by IDEM to this fact sheet as our investigation continues.

How Does IDEM's Enforcement Process Work:

When violations are identified, IDEM informs the company that we believe violations of environmental laws or regulations have occurred. The company is invited to attend a conference to discuss violations or solutions. A Notice of Violation (NOV) is issued to start the formal enforcement process. It also starts a 60 day settlement period required by state statute. After an NOV is issued, the law requires IDEM and the facility to attempt to resolve the violations cooperatively through an Agreed Order. IDEM may extend the settlement period if the facility is working to resolve the issues.

IDEM will conduct a meeting/information exchange intended to provide the facility the opportunity to:

1. Discuss the rules IDEM believes have been violated;
2. Determine issues concerning the violations and any mitigating circumstances; and,
3. Discuss any actions to be taken, or that have been taken, to bring the facility into compliance.

Next, IDEM will conduct a formal negotiation of settlement terms to include in an Agreed Order and steps that will be taken to ensure a facility returns to compliance. An Agreed Order is enforceable by IDEM after it is final. It typically includes the actions necessary to attain and maintain compliance and an appropriate civil penalty. IDEM works to resolve most violations through an agreed order.

Penalty amounts can be affected by: the level of threat of harm to human health and the environment; the length of time of the violation; the economic benefit gained by the violator by not complying and the responsible party's efforts to achieve compliance. Some fines can be partially offset through Supplemental Environmental Projects (SEPs) which provide opportunities to improve the environment beyond the legal requirements.

If IDEM and a responsible party are unable to come to agreement and finalize a resolution of the violations through an agreed order, IDEM may issue a Commissioner's Order (CO). A CO is a unilateral order requiring specific action to correct a violation and/or pay a civil penalty. Commissioner's Orders are issued when a Notice of Violation is not settled by Agreed Order.

What If I Have A Complaint?

IDEM remains vigilant in our investigation and continues to document odors reported by area residents. IDEM urges citizens to immediately report odors to the agency, if detected. Citizens should describe the smell and any adverse effects and tell us an approximate location, date, and time the smell was noticed.

Currently, there are no federal or Indiana state air regulations that directly address odor. While IDEM Office of Air Quality does not regulate odor, inspectors often investigate odor complaints to ensure that equipment failures, malfunctions, or process changes at regulated facilities is not causing or related to an odor complaint.

Complaints may be submitted online at www.IN.gov/idem/5221.htm or via phone by calling the IDEM Complaint Coordinator at (800) 451-6027 ext. 2446.

Citizens may anonymously report to IDEM, but should request to remain anonymous prior to sharing a complaint.

Additional Information:

To view public documents related to the Clark Floyd Landfill, visit IDEM's Virtual File Cabinet (VFC) at <http://www.in.gov/idem/6953.htm> .

For more information on solid waste and landfill permitting, visit IDEM's website at <http://www.IN.gov/idem/4222.htm>

For more information on solid waste and landfill compliance, reporting, and services, visit IDEM's website at <http://www.IN.gov/idem/4998.htm> .

For more information on methane collection and use as an energy source in the United States, visit U.S. EPA's website at <http://www.epa.gov/lmop/faq/lfg.html>.